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EXAMINER	
MICHALSKI, JUSTIN I	

ART UNIT	PAPER NUMBER
2644	6

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/690,215	RYBICKI ET AL.	
	Examiner	Art Unit	
	Justin Michalski	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-7,10-12,16-18,21-23 and 27* is/are rejected.

7)☒ Claim(s) *2-4,8,9,13-15,19,20,24-26,28-30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 objected to because of the following informalities: In line two of the second sub-paragraph "passes" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 12, 23, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Edgar (US Patent 5,278,909).

Regarding Claim 1, Edgar discloses a computer audio system (Figure 8, it is inherent that the device is a computer in order to process signals and data) comprising: an audio codec (distribution of signals 210 and 212 before filters 214, 215,218,220, 222, 224, and adders 238 and 234) operably coupled to receive audio information (signals 210 and 212) and to provide a first stereo audio output

(signal 210 to references 214, 218, 222, 232, and 234), a second stereo audio output (signal 21 to references 216, 220, 224, and 234), and a monotone audio output based on the audio information (output of adder 232); and a tone controller operably coupled to the audio codec (Figure 8), wherein the tone controller includes: a low pass filter (filter 258) operably coupled to filter the monotone audio output, wherein the low pass filter passes a bass component of the monotone audio output, wherein the low pass filter passes a bass component of the monotone audio output substantially unattenuated and attenuates higher frequency components of the monotone audio output; a high pass filter (filter 214) operably coupled to filter the first stereo audio output, wherein the high pass filter passes a treble component of the first stereo audio output substantially unattenuated and attenuates lower frequency components of the first stereo audio signal; a band pass filter (filter 220) operably coupled to filter the second stereo audio output, wherein the band pass filter passes a midband component of the second audio output substantially unattenuated and attenuates low frequency components and high frequency components of the second stereo audio signal; and a summing module (summer 268) operable coupled to sum the base component (output of reference 264), the treble component (output of reference 260), and the midband component (output of reference 262) to produce a tone controlled audio output (signal 272). It is inherent that low-pass, high-pass, and band-pass filters pass and attenuate their respective bands.

Regarding Claim 12, Edgar discloses an audio codec comprising (Figure 8): an input for receiving audio information (signals 210 and 212): audio

processing circuitry operably coupled to produce a first stereo audio signal (signal 210), a second stereo audio signal (signal 212), and a monotone audio signal based on the audio information (signal output of 232); a low pass filter operably coupled to filter the monotone audio output (filter 258), wherein the low pass filter passes a bass component of the monotone audio signal substantially unattenuated and attenuates higher frequency components of the monotone audio signal; a high pass filter (filter 214) operably coupled to filter the first stereo audio output, wherein the high pass filter passes a treble component of the first stereo audio signal substantially unattenuated and attenuates lower frequency components of the first stereo audio signal; a band pass filter (filter 220) operably coupled to filter the second stereo audio output, wherein the band pass filter passes a midband component of the second audio signal substantially unattenuated and attenuates low frequency components and high frequency components of the second stereo audio signal; and a summing module (adder 268) operable coupled to sum the base component (output of reference 264), the treble component (output of reference 260), and the midband component (output of reference 262) to produce a tone controlled audio output. It is inherent that low-pass, high-pass, and band-pass filters pass and attenuate their respective bands.

Regarding Claim 23, Edgar discloses computer audio system (Figure 8, it is inherent that the device is a computer in order to process signals and data) comprising: an audio codec (distribution of signals 210 and 212 before filters 214, 215,218,220, 222, 224, and adders 238 and 232) operably coupled to receive

audio information and to provide a first stereo audio output (signal 210 to references 214, 218, 222, 232, and 234), a second stereo audio output (signal 21 to references 216, 220, 224, and 234), and a monotone audio output based on the audio information (output of adder 232); and a tone controller (Figure 8) operably coupled to receive the first stereo audio output (signal 210), the second stereo audio output (signal 212), and the monotone audio output and produces therefrom and audio output, wherein the tone controller includes at least one of: a low pass filter (filter 258) operably coupled to filter the monotone audio output (output of adder 232), wherein the now pass filter passes a bass component of the monotone audio output substantially unattenuated and attenuates higher frequency components of the monotone audio output; a filter operably coupled (filter 214) to filter at least one of the first stereo audio output and the second stereo output (filters first audio output signal 210), wherein the filter passes at least one component of the at least one of the first stereo audio output and the second stereo audio output substantially unattenuated and attenuates other components of the at least one of the first stereo audio output and the second stereo audio output; and a band pass filter (filter 220) operably coupled to filter the second stereo audio output, wherein the band pass filter passes a midband component of the second audio output substantially unattenuated and attenuates low frequency components and high frequency components of the second stereo audio signal. It is inherent that low-pass, high-pass, and band-pass filters pass and attenuate their respective bands.

Regarding Claim 27, Edgar discloses an audio codec comprising (Figure 8): an input for receiving audio information (signals 210 and 212); audio processing circuitry operably coupled to produce a first stereo audio signal (210), a second stereo audio signal 212), and a monotone audio output based on the audio information (output of adder 232), wherein the audio processing circuitry processes the first stereo audio signal (signal 210), the second stereo audio signal (signal 212), and the monotone audio signal (output of adder 232) to produce an audio output (signal 272), wherein the audio processing circuitry includes at least one of: a low pass filter (filter 258) operably coupled to filter the monotone audio output, wherein the low pass filter passes a bass component of the monotone audio output substantially unattenuated and attenuates higher frequency components of the monotone audio output; a filter operably coupled (filter 214) to filter at least one of the first stereo audio output and the second stereo audio output (coupled to first audio output signal 210) wherein the filter passes at least one component (i.e. highpass filter) of the at least one of the first stereo audio output and the second stereo audio output substantially unattenuated and attenuates other components of the at least one of the first stereo audio output and the second stereo audio output; and a band pass filter operably coupled (filter 220) to filter the second stereo audio output (signal 212), wherein the bandpass filter passes a midband component of the second audio output substantially unattenuated and attenuates low frequency components and high frequency components of the second stereo audio signal. It is inherent that

low-pass, high-pass, and band-pass filters pass and attenuate their respective bands.

4. Claims 7 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Best et al. (Hereinafter "Best") (US Patent 6,438,236).

Regarding Claim 7, Best discloses a computer audio system comprising (Figure 4 is inherently a computer system in order to process signals and data): an audio codec (interfaces 20 and 21) operably coupled to receive audio information (inputs to references 20 and 21) and to provide a first stereo audio output (output of 20) and a second stereo audio output (output of 21) based on the audio information; a tone controller (Figure 4) operably coupled to the audio codec, wherein the tone controller includes: a notch filter operably coupled (filter 34) to filter the first stereo audio output, wherein the notch filter passes a bass component and a treble component of the first stereo audio output and attenuates a mid-band component of the first stereo audio output to produce a notched audio output; a band pass filter operably coupled (filter 58) to filter the second stereo audio output, wherein the band pass filter passes a mid-band component of the second stereo audio output and attenuates a bass component and a treble component of the second stereo audio output to produce a band pass audio output; and a summing module (summer 64) operably coupled to sum the notched audio output and the band pass audio output to produce a tone controlled audio output (output of references 28). It is inherent that notch and band-pass filters pass and attenuate their respective bands.

Regarding Claim 18, Best discloses an audio codec comprising (Figure 4): an input for receiving audio information (input to references 20 and 21): audio processing circuitry operably coupled to produce a first stereo audio signal (output of reference 20) and a second stereo audio signal (output of reference 21) based on the audio information; a notch filter (filter 34) operably coupled to filter the first stereo audio signal, wherein the notch filter passes a bass component and a treble component of the first stereo audio signal and attenuates a mid-band component of the first stereo audio signal to produce a notched audio output; a band pass filter (filter 58) operably coupled to filter the second stereo audio signal, wherein the band pass filter passes a mid-band component of the second stereo audio signal and attenuates a bass component and a treble component of the second stereo audio signal to produce a band pass audio output; and a summing module (summer 64) operably coupled to sum the notched audio output and the band pass audio output to produce a tone controlled audio output (output of references 28). It is inherent that notch and band-pass filters pass and attenuate their respective bands.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar as applied to claim 1 above in view of Tagami et al. (US Patent 5,617,478). Edgar discloses a device as stated above apropos of claim 1 but does not disclose the filter response based on a computer. Tagami et al. discloses a device for automatic tone control (Figure 5; Col. 1, lines 6-11). Tagami et al. discloses a control circuit which controls memory 410 and filter 411 to automatically adjust the frequency characteristics of the device without the users knowledge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the response adjusted based on computer parameters to create ease of use by automatically adjusting parameters for the user for a higher quality output.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar as applied to claim 1 in view of Sacks (US Patent 3,803,357). Edgar discloses a device as stated above apropos of claim 1 but does not disclose the summing module being an operational amplifier. Sacks discloses an audio device (Figure 1) comprising an op-amp (summing amp.), multi channels, and high and low pass filters. The op-amp is used to sum the inputs of the channels and filters to produce a single audio output (Col. 4, lines 20-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an operational amplifier to sum the components of the filters to produce a single audio output.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Best as applied to claim 7 above in view of Tagami et al. (US Patent 5,617,478). Best discloses a device as stated above apropos of claim 7 but does not disclose the filter response based on a computer. Tagami et al. discloses a device for automatic tone control (Figure 5; Col. 1, lines 6-11). Tagami et al. discloses a control circuit which controls memory 410 and filter 411 to automatically adjust the frequency characteristics of the device without the users knowledge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the response adjusted based on computer parameters to create ease of use by automatically adjusting parameters for the user for a higher quality output.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Best as applied to claim 7 in view of Sacks (US Patent 3,803,357). Best discloses a device as stated above apropos of claim 7 but does not disclose the summing module being an operational amplifier. Sacks discloses an audio device (Figure 1) comprising an op-amp (summing amp.), multi channels, and high and low pass filters. The op-amp is used to sum the inputs of the channels and filters to produce a single audio output (Col. 4, lines 20-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an operational amplifier to sum the components of the filters to produce a single audio output.

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar as applied to claim 12 above in view of Tagami et al. (US Patent 5,617,478). Edgar discloses a device as stated above apropos of claim 12 but does not disclose the filter response based on a sound system. Tagami et al. discloses a device for automatic tone control (Figure 5; Col. 1, lines 6-11). Tagami et al. discloses a control circuit which controls memory 410 and filter 411 to automatically adjust the frequency characteristics of the device without the users knowledge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the response adjusted based by the sound system parameters to create ease of use by automatically adjusting parameters for the user for a higher quality output.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar as applied to claim 12 in view of Sacks (US Patent 3,803,357). Edgar discloses a device as stated above apropos of claim 12 but does not disclose the summing module being an operational amplifier. Sacks discloses an audio device (Figure 1) comprising an op-amp (summing amp.), multi channels, and high and low pass filters. The op-amp is used to sum the inputs of the channels and filters to produce a single audio output (Col. 4, lines 20-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use an operational amplifier to sum the components of the filters to produce a single audio output.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Best as applied to claim 18 above in view of Tagami et al. (US Patent 5,617,478). Best discloses a device as stated above apropos of claim 18 but does not disclose the filter response based on a sound system. Tagami et al. discloses a device for automatic tone control (Figure 5; Col. 1, lines 6-11). Tagami et al. discloses a control circuit which controls memory 410 and filter 411 to automatically adjust the frequency characteristics of the device without the users knowledge. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the response adjusted based by the sound system parameters to create ease of use by automatically adjusting parameters for the user for a higher quality output.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Best as applied to claim 18 in view of Sacks (US Patent 3,803,357). Best discloses a device as stated above apropos of claim 18 but does not disclose the summing module being an operational amplifier. Sacks discloses an audio device (Figure 1) comprising an op-amp (summing amp.), multi channels, and high and low pass filters. The op-amp is used to sum the inputs of the channels and filters to produce a single audio output (Col. 4, lines 20-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to use an operational amplifier to sum the components of the filters to produce a single audio output.

Allowable Subject Matter

14. Claims 2-4, 8, 9, 13-15, 19, 20, 24-26, and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. Applicant's arguments, see Paper 5, filed 5 April 204, with respect to the rejection(s)of claim(s) 1,7,12,18,23, and 27 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found art.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (703)305-5598. The examiner can normally be reached on 8 Hours, 5 day/week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Isen can be reached on (703)305-4386. The fax

phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM

FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER